11

On the sensible Qualities of the Air. of Cold — cont.d:

given of this fact is correct, I infer from the parts thus tinged of a red color, being pale before they become red, and after a while becoming blue or livid from a tendency of the parts in which the red blood is effused to a mortification. We see the same redness in the faces of hard==drinkers, and of persons subject to Anger, & from the same relaxation & previous state of the capillary vessels induced by the frequent determination of blood to that part of the body. —

4 We are told the Cold Bath ~~was~~ acts by a stimulating power, and hence its great usefulness in a debilitated state of the body. — The ~~first impression of~~ Cold Water ~~upon~~ in this ~~body in~~ case acts in ~~one of two or both~~ two ways. 1st

It stimulates mechanically by the force with which it is impelled against the body. This is evidently the case with the shower bath, and 2ly it abstracts heat and ~~with~~ induces excitement, and thus accumulates excitability upon which the common stimuli of life – the exertions in the bath, & in coming out of it, and the external air (now much warmer than the body) all act in such a Manner as to produce elevated excitement and in some cases the morbid excitement of fever. The primary effects of the Cold Bath are indirectly sedative. Its stimulus is wholly of an indirect nature.

5 ~~It is said~~ We sometimes see a Draught of Cold water suddenly induce partial or

general sweats. Are not these sweats the effects of a stimulating power ~~of~~ in cold? - I answer - no - the cold water in this case acts only by reducing the system to the sweating point. We see the same thing occur from bleeding, and from other depleting medicines. We see it likewise from the external application of cold water to the body in a fever. I have once seen this sweat in a fever ~~to be~~ confined exclusively to the part of the body to which the cold water was applied. It was a patient in the Pennsylvania hospital. -

6 The Cutis anserina which is induced by cold, ~~by~~ has been ascribed to its supposed stimulating power. ~~It is probably the~~ This appearance ~~natural state of~~ upon the skin ~~which~~ is proba=bly

V or if be not its natural state, it may be induced by such a partial contraction of the skin from the abstraction of the stimulus of heat - as to leave a part of the extremities of the nerves or blood = = vessels in their natural state.

its natural state, and would exist constantly
were it not prevented by the action of
heat upon it which gives it a smooth
and uniform surface. — I have seen it
after death, and in very warm weather.
The stimulating effects of cold have
been inferred from the discharges which
take place from the eyes & nose in cold
weather. They arise from a defect of
absorption in consequence of the torpor
induced upon the lymphatics by cold.
— The same torpor induced by other causes
produces the same discharges from the eyes
and nose of old people.

& Fainting is often cured by throwing
a little cold water upon the face. This
fact is urged in favor of the stimulating
effects of cold. The stimulus here, is the

weight and force of the water acting upon a sensible part of the body in a state of excitability suddenly accumulated, and that in the highest degree. —

¶ The pulse is quickened by the action of it is urged. Cold water upon ~~a part~~ the whole, or part of the body. The first action of Cold ~~water~~ water when thus applied, is to reduce the force & frequency of the pulse. It does ~~it~~ so, only by its sedative power. ~~The~~ The subsequent frequency of the pulse is the effect of the debility induced upon the Arterial System by the Cold, ~~and~~ accompanied with a degree of morbid ~~Hence the heart contracts before it is full of blood~~ action. We see the same thing in low fevers, and after the operation of fear which is universally admitted to be of a sedative nature.

10 We are told that the Cool or Cold air is often an exciting Cause of fevers - and that

V Not only fevers, but were convulsions in the ~~nervous~~ muscular System, are sometimes brought on by the same Idatiol Causes.

it must act in this case by a stimulating power.. To this I answer, ~~the cold cold~~ – that the cold, or cool air may act in two ways, by checking perspiration which by stimulating the Capillaries directly, or by being absorbed, and thrown upon irritable parts, may induce fever, or 2ly it may act by suddenly destroying the equilibrium of the System by its sedative power. As I formerly said In this way a temporary fever is sometimes induced by fear and grief both of which we know to be sedative passions. A fever is even induced by bleeding when ~~diminished~~ advised to remove ~~bloody~~ Congestions in the brain, and this remedy ~~by~~ we know to be of a sedative nature. ~~and fever~~ ~~the~~ ~~Dr Cullen~~ ~~Dr Cullen~~ Dr Cullen. I know the followers of Dr Brown ascribe the production of fever to the heat which succeeds the application of Cold to the body, and

11 ly and lastly. I infer Cold to be a sedative from its always ~~increasing~~ accumulating ~~non preternatural~~ excitability in the parts ~~upon~~ of the body to which it is applied. ~~provided~~ nonstimu=lants of all kinds expend excitability, or con=vert it into excitement. This single fact is sufficient to establish the principle I am defending. In speaking of the accumulation of excitability by Cold, take notice I mean only when it is suddenly applied, and continued for a short time. When applied a great while it is expended as in the cold climates of Sweden & Russia.

V The Abstraction of light, as fear is the Abstraction of Courage, as debility ~~and disease~~ ~~are~~ is the effects of the Abstraction of Strength, so Cold is the effect only of the Abstraction of heat.+ I shall resume ~~this~~ and apply this Doctrine when I come to treat of the Cure of fevers.

+ So forcibly did the truth of the Opinion I have defended, strike the late Dr Beddoes that he has left it upon record, that if he were to fix upon a Criterion to establish the greatest possible prejudice or Obliquity of the human Understanding, it should be

hence they have changed the common
phrase of taking a Cold to "taking a heat".
That fevers are sometimes taken in this
way there can be no Doubt, ~~but it is~~
~~only where the heat reduced the long and~~
~~feeble degree~~ but I believe they are
in the ways I have mentioned viz stoppage of perspi=
much oftener induced by the sedative action
=ration or
of the cold suddenly destroying the equilibri=
=um of the System. The Internal fevers
appear to be brought on in this way
when they make their first attack after
too
wearing their Clothing, or sleeping un=
too bed
=der light a covering. ——— The action of the
Cold is much favoured by the body being
impregnated with miasmata from vegetable
& animal putrefaction ~~at~~ in the fall of
~~of the year~~ ~~I shall resume this subject below~~
~~I have to~~ ~~treat of fevers~~ ~~with the~~
I conclude ~~therefore that~~ therefore that
as moral evil is the effect of the abstraction of
moral Good, as Darkness is the effect of V

a belief in the ~~fada~~ stimulating effects of Cold, & the sedative effects of Opium. I ~~subscribe to~~ concur in the truth of the remark.

V In this ~~off~~ respect it follows the analogy of the negative evils to which I have just now compared it, — for moral evil, — Darkness, ~~and~~ fear and Debility all produce the most serious positive ~~and sa~~ effects.

~~Weight and force of the water acting upon a sensible part of the body in a state of the highest degree of accumulated ex= citability suddenly accumulated, & that too in the highest degree.~~

While I thus ~~deny that this~~ ascribe a negative quality, or a sedative operation to Cold, I admit that it produces many positive effects upon the System. I shall now proceed to enumerate the morbid effects of Cold. They will furnish many further proofs that Cold does not possess a stimulating power.

1 Cold induces debility and excitability upon the Arterial System, and thus disposes to all the different forms of fever. When very intense, it creates pain in the breast. This was sensibly felt by the

It likewise weakens and sometimes destroys sensibility, and that to such a degree that Mr Mears tells us the natives of the Northern extremity of our Country feel no pain from Wounds made with Glass in the Soles of their feet.

French Academicians who went to measure a degree near the North Pole. It sometimes brings on Haemoptysis. It also disposes to pain & loss to blood.

2 It affects the nerves with torpor, and thus disposes to the hypocondriac Disease.

3 It produces langnor in the muscles & an indisposition to voluntary motion. hence it has been said the inhabitants of cold Countries were made to be slaves — the will being too weak in them to overcome the langnor in their muscles, it should be stimulated into action by the will of a master. This argument to be true should be reciprocal ~~ofs~~ between master & slave, for the effects of Cold are the same upon each of them.

4 Cold when intense, ~~induces first headache, then sleepiness, and afterwards~~ acts upon the brain, and induces pain - sleepiness

7 By lessening perspiration, and thus removing the natural moisture and softness of the skin it dulls the sensation of touch. ~~to~~

It says that animals that perish with cold retain their appetites to the last of their lives.

Cold when applied permanently changes even the figure of the face. It contracts the eye lids - and reduces the eye brows - By the pressure of the lower jaw against the upper, to lessen the pain of cold, it elevates the cheek-bones and lessens the length of the face, and thus produces this a succession of generations the contracted & broad face which is observed in the inhabitants of ~~cold~~ northern countries.

Pitna

and death. 5

5 It debilitates the faculties of the mind.

6 It affects several of the senses. I have already mentioned its effects upon the sense of touch in inducing pain. It lessens the acuteness of taste and dulls the sense of vision, in part probably by its being generally accompanied with the reflection of the rays of light from the snow.

7 Cold invigorates the appetite, especially for animal food. Horses eat more in cold stables than in close and warm ones. The stimulus of aliment serves to counteract the debility induced by the cold. It even awakens appetite in when it succeeds a hot day in the middle of the night in warmer climates. Dr Arbuthnot

8 The effects of cold upon the skin are as various as the effects of heat. By

v Cold when applied for a long time
produces sores and Ulcers on the Skin.
This was remarkably the case in the Sailors
board the American Sloops of War the
Frontiers in the Winter of 1811.12.

Obstructing perspiration it disposes to cuta-
neous eruptions. When it has not this
effect, it increases the secretion & discharge of
Urine. This is so frequently the case that
Dr Sydenham recommends the application
of it to the Skin to remove the Suppression of
Urine which sometimes takes place in
~~the~~ malignant fevers. It renders sweating
difficult, and hence the propriety of
resorting to other modes of depletion in the
fevers of Cold Climates. When applied for
a long time it produces a dark ~~the white~~ color
upon the Skin resembling that which is
produced by the long application of heat.
Cold weakens the Venereal Appetite. Perhaps
it may have this effect by the ~~reflections which~~
dread it induces of the difficulties of suppor-
-ting a numerous family of Children

V It appears not only in the reduced size of the body, but in the shorter length of the face. ~~They are both indeed by~~ The natural operation of the cold is aided by prepone to obviate cold in the limbs & body, and by the ‡

~~I shall conclude this Account of the positive effects of Cold by taking notice of a fact lately established by a number of experiments made by Dr De La Roche of Geneva, and that is – Animals live longer in a temperature of Air lower by a greater number of degrees than 96 or Animal heat, than above them.~~

VI Effects of heat.

‡ the prepone of the lower upon the upper jaw. The last shortens the face.

where ~~for~~ the means of subsistence are less abundant than in warm Countries.

10 Cold contracts the solids of the human body in such a manner as to diminish this in a lapse of generations the size of animals. The human body is lessened by it. This is observable in the inhabitants of the extremity of the north of Europe. It is by its contracting ~~the~~ the fibres ~~of the body~~ that ~~a few~~ ~~Degree of~~ Cold Water encreases the pain of the rack when thrown upon the body. It ~~the~~ acts by encreasing ~~this~~ tendency to a solution of Continuity. ~~Cons~~ the pain of contraction is added to that of distention. —

Let us next inquire into the relative effects of Cold in producing disease, and here I shall follow the same order as in speaking of the relative

1 Its morbid effects are lessened by its Uniformity. The most healthy winters I have known in Philad.a have been those in which a dry - uniform Cold prevailed.

V This is obvious every day from the insensibility of the face and hands not only to coldness of the air, but to the coldness of the water with which we wash them every morning. The application of the hands and face with the whole body is destroyed by habit. The same thing does not take place when the feet are immersed in cold water. The whole body sympathizes in the cold indeed in them.

I observed ~~this~~ it the first time in the year 1764 when a student of medicine. ~~Norway~~ Diseases are locked up in Canada ~~and~~ & in Russia During the Winter. [Even the Catarrh (the usual disease of variable ~~Cli~~ winter) is unknown ~~in that~~ Dr Guthrie tells us in ~~the latter country~~ ~~Portugal and the~~ ~~Sing. Account~~ the latter Country]. The same account is given by Pontoppidan of the healthiness of the Winters in Norway. They are so in all those Countries, only because they are uniformly cold & dry.

2 The morbid effects of Cold are ~~increased~~ lessened by time and habit! Cold after a while produces insensibility, not only ~~to itself~~, but to heat. This has often been observed in the West In=dies, where the Europeans bear the intense

V It is felt every day from the insensibity of the face and hands to the coldness of the water with which we wash them every morning.

heat of the Sun better than the natives of the Islands. This insensibility to heat is to be acquired only by ~~living in a climate~~ the long action upon the body ~~that is~~ of Cold, alternated with little heat. In a Climate like ours we lose the insensibility ~~of~~ to Cold contracted ~~by~~ in a single winter by the succeeding heat of the Summer. The man therefore who attempts to fortify himself against ~~the~~ cold in Pennsylvania by light Clothing will have his work to begin and do over again every winter. If he should acquire his long sought for insensibility to Cold it will be in the same way in which a farmer taught his horse to live without eating. ~~His experiment succeeded but~~ As soon as the poor Animal ~~died immediately~~

V the feet and trunk of the body from an insensibility to Cold contracted from ~~washing them warm drawing in~~ by their being more constantly exposed to the Cold.

was perfectly taught his own lesson, he died.]—

3 They are lessened by the natural insensibility of some parts of the body to this operation. The lungs feel the cold, much less than any other part of the body. The head is insensible to it in the next degree. It is from this ~~activity~~ powers of resisting cold in the head ~~of the brain~~ that it is seldom perhaps more cold in the cold fit of an intermittent. The hands & face suffer less than

4 They are lessened ~~by acting upon also~~ in all those persons who are affected with the nervous spasm of themselves — ~~that~~ is who possess a predisposition to nervous diseases. Hence hysterical patients ~~have~~ suffer least in cold weather.

5 They ~~are~~ are less hurtful to children than to grown people. Dr Priestley relates an instance of a child being found alive upon ~~its mother's~~ the back of its mother who was frozen to death.

provided they do not exceed the 98°
or the natural temperature of the hu=
=man body. Beyond this grade, no
sensation of cold is felt from the de=
=scent of the mercury in the thermometer.

The morbid effects of Cold are increased,
1 by previous heat. ~~this~~ The Cold acts differently
according to the following circumstances.
1 ~~the~~ the degrees of previous heat. the higher the
grade of heat the more sensibly ~~the~~ small
deviations from it act upon the body,
but Mr Bryden says the Air when ~~it~~ the mercury fell from
112° to 80°: ~~at Naples~~ After a hot sirocco Wind
had passed over the City of Naples, was
attended with a painful sensation of Cold.
Baron Humbolt informed me that ~~it~~
sudden fall of the ☿ from 90° to 80°: gave him
~~the~~ a similar sensation in South America.
the sensation of Cold was ~~exquisitely~~ still
more painful to Dr Hordyce when he passed
from a room in which the mercury
stood at 110°. into the open air in which

V The pestilential effects of the night air in Egypt depend chiefly upon the difference between its temperature, and that of the preceding day. But

it was 45°. Dr Moseley's facts upon this
subject are still more to our purpose.
~~"Even the great relaxation & debility of~~
~~the nervous system in tropical climates,~~
~~the most trivial change in the air w.ch~~
~~makes but a small variation in the ther-~~
~~=mometer is productive of a sense at~~
(says the Doctor)
" If the heat of the air should sink to 72°:
and remain stationary for a day, in
places where the medium is 80°: it produces
an aguish, or chilly sensation that is
hardly to be described. Again - adds the
Doctor ~~of~~ " In the habitable mountains
where the air is scarcely ever so cool as
what is called temperate in Europe, people
who go there suddenly from the low lands,
find the coldness at first hardly sup=
=portable

"and that intolerable Coldness which is felt at the summit of the Blue Mountains in Jamaica [about 2400 yards above the level of the sea] is but the effect of the suddenness of the change from the scorching heat below. The thermometer on these mountains is about 44° in the day time & 20° at night".

The diseases produced by this abstraction of heat are from a high to a moderate grade, ~~inclusive~~ viz: fevers, spasms - and a numbness in the limbs. The first occurs in the West India Islands. The second viz spasms in the East Indies, & the last viz: numbness was observed in the soldiers who marched from Suez to Cairo in the year of the French & English ~~expedition to~~ campaign in Egypt. So numerous are these diseases in hot Countries, that Dr Moseley has well remarked ~~that~~ "however paradoxical it may appear, cold to be

V But how shall we ~~account~~ reconcile these facts with the account we gave of the insensibility of the body to those great transitions from ~~to intense~~ heat to cold in Finland, Russia & South America. I answer, the heat of the baths in these cases is more intense, and more destructive to sensibility than the ordinary heat in the West Indies. In the latter country heat so far from destroying sensi=bility often increases it. But there may be another reason why ~~the~~ an extreme of cold does not induce disease when it succeeds ~~too intense~~ great heat. It may by its seda=tive and great sedative power ~~to~~ produce reac=tion in ~~this~~ the system, and thus counteract its own morbid effects. In the same way we often suffer cold, ~~&c~~ from standing on walking in an air at 32° than at 45, or 50°. The former produces reaction, and thus prevents ~~the~~ disease. The latter =

the Cause of ~~all~~ almost all Diseases in hot Climates to which Climate Alone is necessary. It is for this reason the Doctor very justly says the natives of the Islands are al=ways in a state of predisposition to disease.

2 Cold acts differently according to the Dura=tion of previous heat. ~~[illegible]~~ The longer the body has been exposed to heat the less it suffers from the Cold, in consequence of the heat destroying sensibility not only to itself, but to Cold likewise, and the shorter the Duration of the ~~Cold~~ heat which pre=ceds Cold, the more hurtful it becomes to the body.

3 It acts differently according to the greater or less excitability of the System. It has been observed that certain Animals perish in a degree of Cold in the beginning of Winter, that revives them in the Spring. In the former season their

=degrees of Cold act too feeble as a sedative for that purpose. ~~This~~ The inhabi=
=tants of Cuba (Ulloa tells us) when mo=
=derately wet, plunge themselves into the
first stream of water they meet with,
in order to avoid taking Cold. The quantity
of water in this case brings on reaction,
and thus prevents disease. A Cold Bath
at 50° is often safer and more salutary
for the same reason than a Bath at 75°.
The former by its greater depression of the
System produces greater reaction. This remark
will be applied ~~to the~~ in speaking of Cold as a
remedy. It teaches us the danger of using very
cold water in violent diseases. It is rendered
less hurtful by being applied a great while
so as to weaken the irritability of the
vessels. return to 2. p. 57.

¶ Cold water poured ~~down~~ under the sleeve of
the Coat with the arm elevated gives great
pain. It is one of the modes of punishment
in the ~~[illegible]~~ Jail of this City.

excitability is exhausted — in the latter, it is accumulated by the ~~previous~~ cold of the previous Winter. —

4 It acts differently according to its greater or less variations. As small variations more easily when the mercury fluctuates between 60 & 62. of heat produce disease so do those of cold, provided they ~~are repeated~~ ascend from ~~the~~ ~~to~~ below zero: thus sp. and act more rigidly than would do. —

5 The morbid effects of cold are increased by the frequency & suddenness of the ~~cold~~ alternations of heat and cold. Recollect here what was said of the gradual & sudden application of heat to a cold body.

6 ~~They are~~ Cold acts more or less certainly in producing disease according as it is applied to ~~a part~~ the whole, or a part of the body, or upon a part that has been confined from, or exposed to the action of the air. ‡ Cold feet often produce Catarrh, Colic, and even palsy & apoplexy. The cold hand of a physician will sometimes produce a rigor in the whole body of a

A lady died of a consumption in this city about 40 years ago ~~by~~ in consequence of sitting a whole evening with ~~the foot of her clothing~~ one of her feet chilled by stepping into a gutter of cold water. It is from the partial effects of cold upon ~~more~~ the body, that more colds are taken by sitting before a large fire with the back exposed to cres=cents of ~~cold~~ cool air from leaky doors & windows, than from excessing a whole day in the open air in cold weather with every part of the body alike exposed to it.

The consumptions which have so much increased in ~~our country~~ of late years among the women of our country I be=lieve are owing in part, to their naked elbows and ~~upper~~ arms. Those parts participate in an eminent ~~degree~~ degree with the lungs.

The partial application of cold is felt when it is applied to the lungs only. Cold air inhaled while the body was warm reduced the pulse 5 strokes in a minute. It is from this partial action of cold upon the body thro' the medium of the lungs that colds are

patient, and I know a gentleman in this city [Mr Geo: Clymer] who is subject to a Cough, who can excite a fit of coughing at any time ~~by~~ in the night, only by putting his hand out of bed. — A current of air against the neck often brings on tremor, stiffness, &c. in that part of the body, and sometimes trismus or a locked jaw. I once knew a young woman wholly ~~was~~ having off a ribbon at any time which she usually wore upon her cap, was affected with Coryza, and we had a citizen ~~who~~ of Philad.a ~~by~~ who was affected with Catarrh every time he passed a forenoon with his shoes down at the heels. All these indispositions and diseases are the effects of the loss of the equilibrium of the System. They should teach us the importance of guarding ~~many~~

= are so often taken ~~in bed~~ by invalids who sleep in a cold room, after passing the whole day in a room of a warm & pleasant temperature. return to p 60 =

~~part of~~ the body from the partial or unequal effects of Cold in all ~~chronic diseases~~ predispositions to disease.

The morbid effects of the same degree of Cold are much encreased by being combined with Wind. ~~It disposes to~~ Diseases of the breast are often induced by them.

Moisture encreases the morbid effects of Cold. ~~this~~ It acts like Wind by carrying off the heat of the body. The Cold of great Britain at 30° is much more disagreeable than the Cold of Russia at 10°. The Russian Sailors who spent part of the winter 1776 at ~~Spithead~~ ~~Portsmouth~~ Plymouth declared that the moist Cold of England was far more insupportable to them than the coldest weather they had ever before felt in their

V It is to the common operation of Cold and Moisture that the Scrophulas is more common in Great Britain than it is ~~this~~ any other Country. ~~and~~ The poor suffer most from this disease chiefly because they are more exposed to its remote cause from the want of sufficient fuel and clothing.

own Country. The Air of Holland owes its unwholsome quality to its Moisture, ~~It is so~~ combined with Cold. It is to obviate the effects of both, that the Dutch are obliged in the evening to increase their Clothing - for at that time the Moisture abounds most in this Atmosphere. Cold acts more certainly upon old, than upon young or middle aged persons. It has often been remarked that very cold Spells of weather (as they are called) in our City - that is, weather in which the mercury descends below 10 proves fatal to ~~many~~ very old people. They generally perish in their beds, probably from the want of a sufficient quantity of bed Clothes. Drunkards are more affected by 10 ~~bad~~

cold than sober people. Three men notorious for ~~their~~ drunkenness, died in the course of six weeks in the Winter of 1791.2 during the coldest week in January. ~~from~~ ~~in modera~~ There is a great predisposition in Drunkards to be affected by Cold, & hence we sometimes observe them to be chilly even in moderate weather.

11 Cold is more disposed to produce disease when the stomach is empty than when it is full of Aliment, - ~~have~~ Sailors who suffer from cold are often predisposed to it from the long fasting to which cold & bad weather at sea exposes them.

12 Cold acts more certainly & more powerfully upon the System in the Sleeping than in the Waking state. It has been found that a man dies in a Cold of 8°: or 9°: below

0, ~~[illegible]~~ when asleep; whereas a man who is awake & in exercise will survive a degree of Cold 30° below 0. The more frequent Attacks of fevers in the night than at any other time is to be ascribed chiefly to the greater influence of Cold upon the body in a sleeping than in a waking state.

13 Invalids who are affected with debility ~~particularly~~ accompanied with the Shiverings of the person or with weak ~~particularly of the nerves~~ or Chronic diseases are always predisposed to be ~~[illegible]~~ injured ~~to~~ by Cold.

~~Upon reviving the morbid effects of Cold we cannot help being struck with this member, & Disease, and the misery that is connected with them. Perhaps there is more Animal Suffering from~~

~~14 The morbid effects of Cold are more hurtful~~

Cold is more hurtful in the humanes

~~From what has been said you will not understand the reason why the diseases of the~~ ~~four seas~~ of the positive & negative influence of Cold Climates upon the body in producing diseases, ~~but of the four seasons of the year. Hence~~ you will be able to account for the variety and changes in the diseases of the four seasons of the year.

of autumn when the body is impregnated with putrid miasmata than at any other time. I have twice seen several hundred persons indisposed with fevers (in which the mercury fell between 20 & 30°) of a single night preceding a hot day in the month of August, who would have felt scarcely a slight catarrh from the same change in the weather in the months of June, or November.

In reviewing the morbid effects of cold, we cannot help being struck with this number & violence, and the misery that is connected with them. Perhaps there is more animal suffering from cold than from any other cause. The whole brute creation groans under ~~the cold~~ it; millions of animated creatures perish from it every year. But to man it is hurtful & destructive in a high degree. Who can calculate

the pains and distresses of sailors, soldiers & the laboring poor from this cause? — how numerous ~~are~~ and fatal are the diseases induced chiefly by its simple operation! ~~and~~ but ~~how~~ still more numerous & fatal are its effects when combined with moisture and miasmata! ~~It~~ It may be considered as the exciting cause of nearly all disease — has been strangely overlooked in the inventory of human evils, but I believe. It = = live the facts that have been enumerated, authorise us to assert that there does not ~~exist~~ exist upon our globe a greater physical enemy to the ~~life~~ health, and life of man than Cold. — The effects of

But numerous, distressing and fatal as could have been represented to be, they do not exist by an irresistable law of nature. ~~where~~ where men live agreeably to reason

The Deaths in Petersburg are said to be 1 male in 9, and 1 female in 13 annually ~~After they passed the~~ between the 20th & 25th years of life, and most of them from the intemperate Use of Brandy disposing to fevers. These fevers are $\frac{1}{4}$ plurisies $\frac{1}{6}$ consumptive & $\frac{1}{3}$ common fevers making $\frac{5}{7}$ of all who die } mortals.

health & longevity are nearly as common in Cold as in warmer Countries, and were in those Countries where they are not so, it is probable ~~they are~~ diseases are indu=ced, and life shortened by the excessive use of ~~stimuli~~ ardent spirits, animal food & dancing which are resorted to, ~~to~~ in order to counteract the effects of Cold. Thick Walls double Windows, and ~~fl~~ close stoves in the ~~at~~ house, and fires, and foot stoves in the open air, afford an ample protection from the Cold in Canada and Russia. This is so much the case, that Dr Guthrie tells us ~~the Russians complain~~ the Calamb is unknown in the better Country in their seve=rest Winters. ~~I have been~~ Natives of the middle States who pass a Winter in Canada

apure no they suffer less from the cold
there, than in their own country.

Nor is a Climate such as that of
the Southern parts of Europe and of the
United States in which the Thermometer
is constantly fluctuating between heat
& Cold necessarily unhealthy where the
inhabitants accommodate their dresses
and manner of living to the Changes
in the Weather. ~~Too~~ Where persons object
to the trouble of Changing their Cloaths daily, or two or
three times a day, when the changes in
the Weather require it, they should wear
cloaths warmer than is agreeable to
them. By this means many peoples es=
=cape the diseases of Middle & variable Climates.

Nor does Moisture when combined with Cold, necessarily produce sickness. This is evident from the healthy com=plexions and robust bodies of the inhabi=tants of Great Britain & Ireland. The morbid effects of this Union of ~~the~~ mois==ture with Cold are obviated by constant labor, suitable Clothing, - and the influence of habit upon the body. - ~~The remarks of~~ Dr. Sydenham confirms this remark ~~the~~ as well as the one made under the ~~last~~ preceding head. He says most of the acute diseases of Great Britain are ~~the~~ produced by ~~the~~ the neglect or the want of sufficient Clothing ~~to~~ to protect the body from Cold. The same ~~remark~~ things produce or excite nearly all the ~~acute fevers~~ acute diseases in the middle States of America. I have been called to many thousand people in==disposed

with fevers from wearing too thin Cloaths, or sleeping under too few bedcloaths, but never one person indisposed from an excess in the use of either of those Articles.

I shall conclude the history ~~to sum up what has been said~~ of the effects of heat, cold, moisture, Dryness & ~~Dampness~~ upon the body, by repeating that ~~whatever~~ none of them are hurtful when they are ~~uni~~ moderate & uniform. It is ~~from~~ a moist ~~atmosphere~~ ~~[illegible]~~ when not alternated with dry weather for several months is not unhealthy. This has been taken notice of by Dr Winterringham in his Account of the Epidemicks of Great Britain. ~~These~~ ~~they~~ chiefly ~~chiefly~~ ~~[illegible]~~ ~~his~~ the changes ~~[illegible]~~ in the sensible qualities of the Air that have been mentioned, that we derive all the Diseases that have been ascribed to them.